

AKROTEK®

RA GFM 15/25 black (8216)

PA6 (GF15+MD25)

AKROTEK® RA GFM 15/25 black (8216) is a 15% glass fibre reinforced, 25% mineral filled polyamide 6 with high radar absorption and low radar reflection at 76 - 81 GHz. The material is suited for parts that require radar absorption like automotive radar sensor housings or brackets. DUAL-USE good - end of use declaration is needed.

Features

radar applications

Properties

Modulus	Strength	Impact
8.500 MPa	120 MPa	50 kJ/m ²

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min d.a.m.	8500 MPa
Tensile stress at break ISO 527-2	5 mm/min d.a.m.	120 MPa
Tensile strain at break ISO 527-2	5 mm/min d.a.m.	3 %
Charpy impact strength ISO 179-1/1eU	23°C d.a.m.	50 kJ/m ²
Charpy notched impact strength ISO 179-1/1eA	23°C d.a.m.	5 kJ/m ²

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	190 °C
Melting temperature ISO 11357-3	DSC, 10K/min	222 °C

Flammability

Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness

+

General Properties

Density

ISO 1183

23°C

1,45 g/cm³

Humidity absorption

ISO 1110

70°C, 62% r.H.

1,7 - 1,9 %

Water absorption

ISO 62

23°C, saturated

6,3 - 6,7 %

Molding shrinkage

ISO 294-4

flow

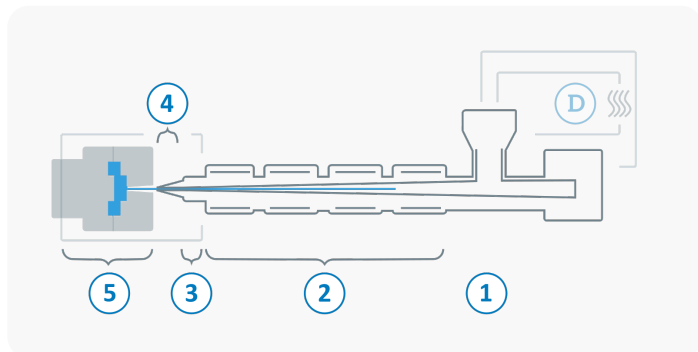
0,2 - 0,4 %

transverse

0,8 - 1,0 %

Processing

The values mentioned are recommendations. We only recommend desiccant / dry air dryers or vacuum dryers. Too long a drying time and the resulting residual moisture content below the lower limit can lead to filling problems and surface defects. The specified drying time refers to closed and undamaged bagged material. When processing from previously opened bags or from octabins with polyolefin inliners, a longer drying time may be necessary. It is recommended to check the residual moisture content after the drying process.



D	Drying time	0 - 4 h
	Drying temperature ($\tau \leq -30^{\circ}\text{C}$)	80 °C
	Processing moisture	0,02 - 0,1 %
1	Feed section	60 - 80 °C
2	Temperature Zone 1 - Zone 4	240 - 290 °C
3	Nozzle temperature	260 - 300 °C
4	Melt temperature	270 - 290 °C
5	Mold temperature	80 - 100 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min